PRESIDENT'S ADDRESS.

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We have before us an interesting programme and a long one, and in order to finish it we must be economical of time. You are doubtless impatient to hear the excellent papers, the importance of which is assured by the titles and the prominence of the speakers. I share your eager anticipation and I shall not detain you long with the preliminary exercises. Instead of making a presidential address, I wish briefly to show you a few X-rays which are interesting because they illustrate a method that clarifies certain otherwise obscure pulmonary conditions. A white man, 62 years of age, was admitted to the Johns Hopkins Hospital on Jan. 4, 1932, complaining of cough, weakness and pain in the right side. He had had asthma since early childhood. Three years before he had an attack of dry pleurisy on the right side with chill, fever and cough. He was ill and weak for some time. In November 1930 he had a similar attack lasting four days. On November 26, 1931, he again had pain on the right side and was in bed for four days. He then returned to work. Ten days before admission pain in the right side recurred. He had a chill, followed by fever, cough and increasing weakness and shortness of breath.

Examination showed a rounded, emphysematous type of chest. The trachea deviated to the right. The percussion note was everywhere hyperresonant. A friction was heard in the right axillary region, and numerous sibilant and sonorous râles over both lower lobes. The sputa contained tubercle bacilli. Here is the first X-ray plate of the chest. As is commonly the case in emphysema, the X-ray (Illustration No. 1) shows pulmonary lesions that escape detection by percussion and auscultation. In the right upper lobe is a large area of infiltration with fibrosis. There is probably a small cavity. I wish to call your attention especially to the shadow in the lower part of the right lung. It is a large diffuse shadow which seems to come from beneath the right side of the heart. The sharp outline, especially

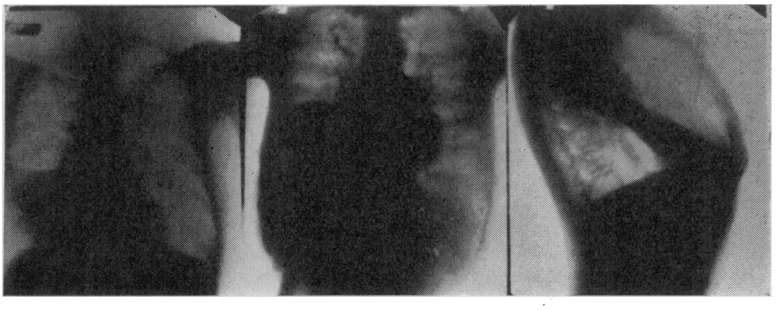

ILLUSTRATION No. 1.

of the upper border, suggests at once that the shadow is cast by a pleural lesion, and the density of the shadow suggests that it is due to fluid. But it is an unusual position for fluid. Certainly it is not fluid free in the pleural cavity; it must be encapsulated fluid. From previous experience, the opinion was expressed that the fluid was in the fissure between the lower and middle lobes. Therefore, another picture was taken with the rays directed downward so as to fall more nearly parallel with this interlobar fissure. As you see in this second X-ray, the shadow is now narrower and much denser. Finally in this lateral view, the shadow is a band occupying the position and running in the direction of the fissure between the middle and lower lobes. The relation of these X-rays is well illustrated by this schema (Illustration No. 2) taken from the article of Liebmann in the second volume of the "Lehrbuch der Roentgen-Diagnostik" edited in 1932 by Schutz, Baensch & Friedl.

A colored plasterer, 48 years of age, came to the Outpatient Department of the Johns Hopkins Hospital on Feb. 10, 1932, and after a period of observation was admitted to the hospital on April 4, 1932. Two years before he began to have cough and expectoration which became increasingly more marked. Nine months before he was in bed for three weeks with fever, general malaise and night sweats. From then on he continued to have at intervals chilliness and night sweats. The cough continued, he lost weight and strength, and gradually became short of breath.

The examination of the chest showed surprisingly little in comparison with the severity of his symptoms. Nothing was found but

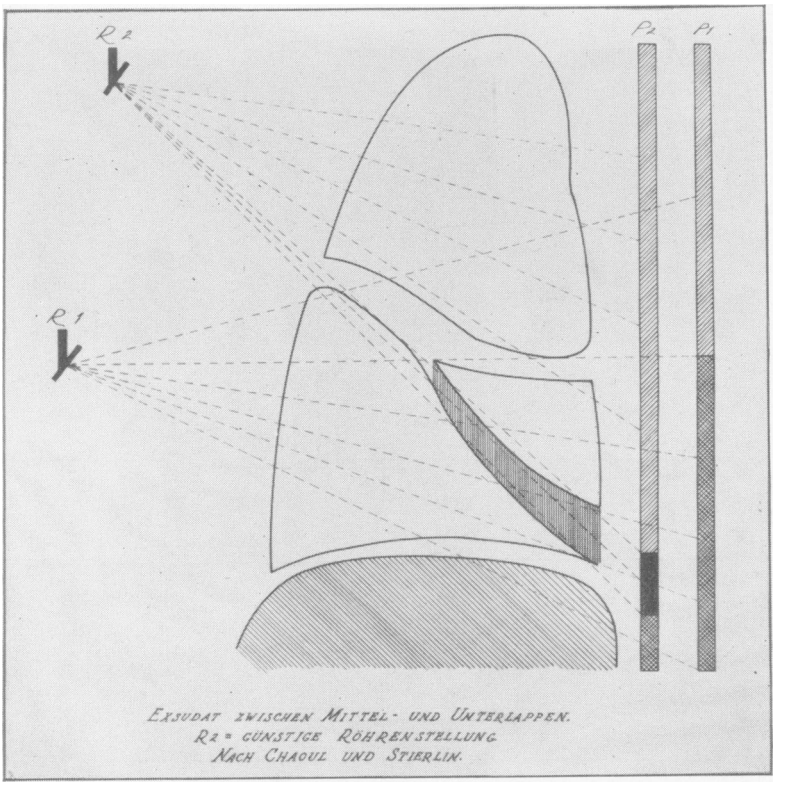

ILLUSTRATION No. 2.

a little dullness over the right lower lobe and numerous râles over both lower lobes, more numerous over the right than over the left. It was thought that he had a chronic basilar infection, and on account of the profuse mucopurulent expectoration, probably bronchiectasis. Tubercle bacilli could not be found.

This is a reproduction of the first X-ray taken (Illustration No. 3). It shows, as you see, a diffuse shadow in the lower part of the right lung. I think one would not suspect fluid from this picture. In the second plate, taken with rays more nearly parallel to the fissure between the lower and the middle lobes, the shadow is narrower and denser, and here in the lateral plate exudate in the fissure

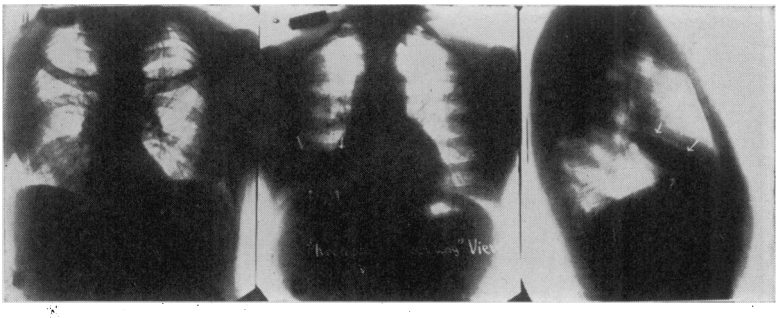

ILLUSTRATION No. 3.

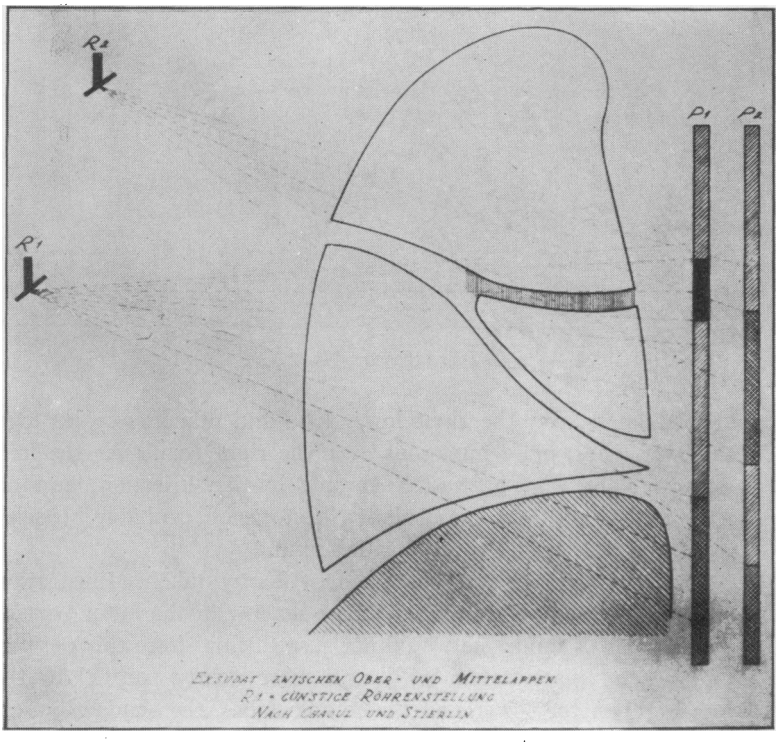

ILLUSTRATION No. 4.

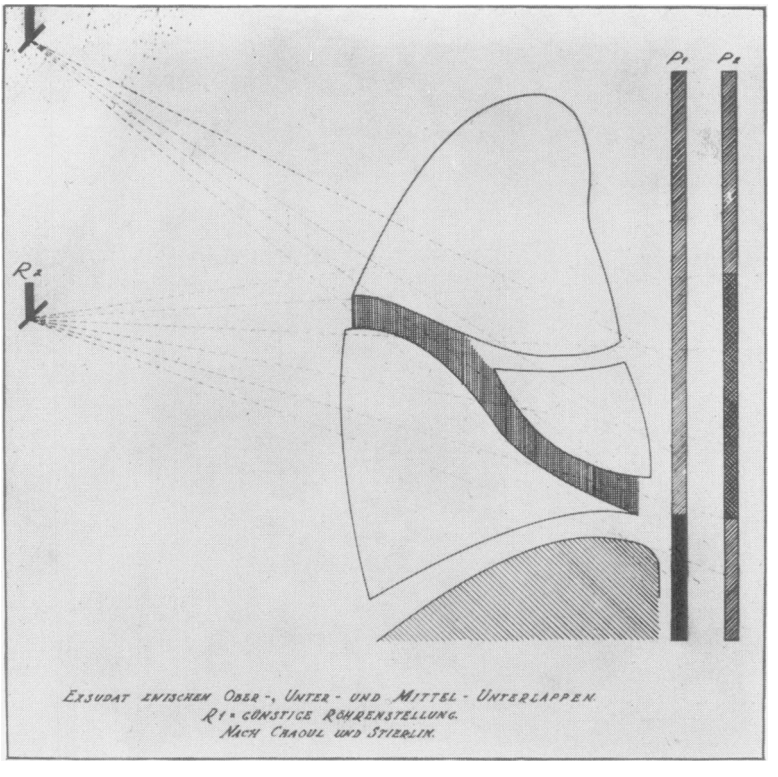

ILLUSTRATION No. 5.

is clearly shown. So far we have discovered exudate only in the fissure between the middle and the lower lobes. It seems to be more frequent there, but no doubt occurs often in the other fissures. These further diagrams (Illustrations Nos. 4 and 5), also taken from Liebmann, show the conditions that would obtain were the exudate in the other fissures.

In concluding, I wish to show you the X-rays of a different condition. A man 54 years of age, began to have, on exertion, substernal pain radiating to the shoulders. An X-ray was taken of the chest to determine the size of the heart, and this is what it shows (Illustration No. 6). The heart, as you see, is normal in appearance, but here in the lower part of the right lung, just above the diaphragm, is a

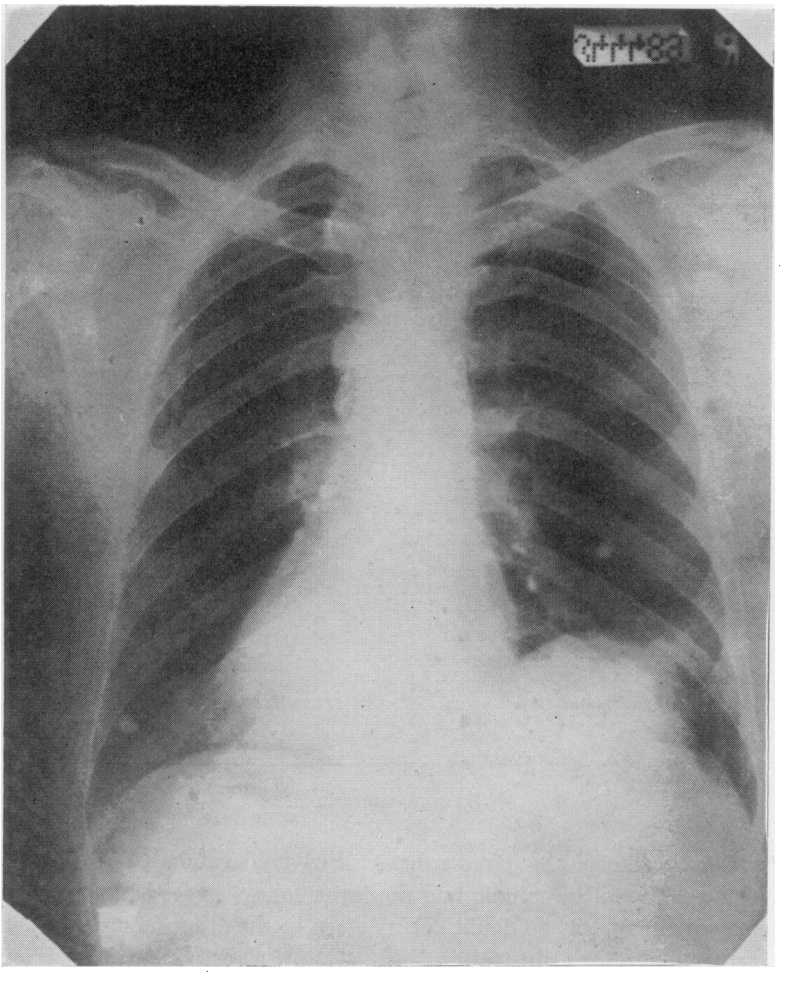

ILLUSTRATION No. 6.

clear-cut, rounded mass looking like a cyst. The lateral view of the chest (Illustration No. 7) shows the shadow far forward, almost reaching the anterior chest wall. This finding came as a great surprise, because the patient had no pulmonary symptoms and the most careful and painstaking physical examination of the lungs failed to

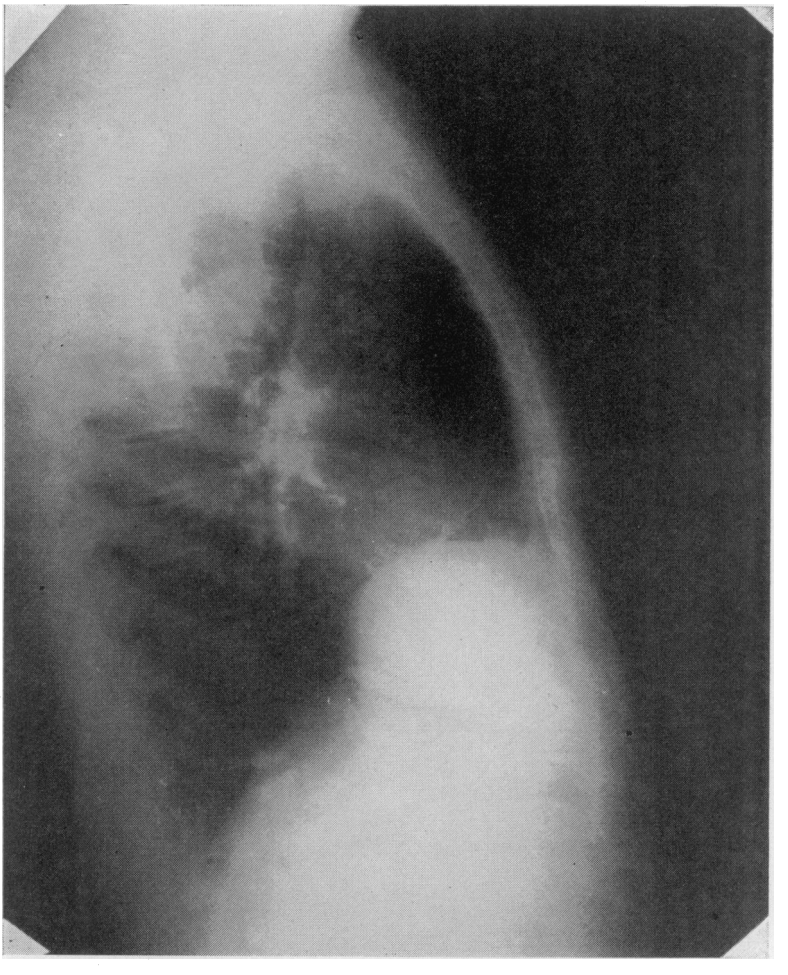

ILLUSTRATION No. 7.

reveal the slightest abnormality. Under the fluoroscope the diaphragm moved normally and as it descended, the shadow descended with it, the borders of the shadow at the same time spreading out. This demonstrated clearly that the shadow was thrown by something attached to the diaphragm, and that whatever it was, it actually

ILLUSTRATION No. 8.

expanded as the diaphragm contracted. This observation excluded the possibility of a cyst or other benign tumor in the lung. Twenty-eight years ago the patient had had pneumonia following appendectomy. He was very ill, and as he did not improve, the physician at one of his visits said that if he was not better the following day

ILLUSTRATION No. 9.

he would be obliged to insert a needle to search for fluid. That night something in the chest ruptured, the patient spat up a large amount of pus and rapidly made a further uneventful recovery. Evidently he had had an empyema or a subdiaphragmatic abscess that discharged through the lung. An effort was made to explain the shadow as due to a mass of scar tissue upon the dome of the diaphragm. However, this explanation was unsatisfactory on account of the sharp outline of the shadow and its obvious protrusion from the surface of

the diaphragm. An altogether satisfying explanation is given by an analogous instance (Illustration No. 8) reported by L. R. Sante in Vol. XI of the Annals of Roentgenology. The X-ray picture (Illustration No. 9) taken after the production of pneumoperitoneum shows clearly a diaphragmatic hernia with a nodular portion of the liver projecting into the sac.